

Patent claims

1. An application aid (1) for introducing a material (12) for treatment of bone defects into a natural bone or a natural bone structure, with
 - 5 - a substantially flexible and tubular or sleeve-shaped outer part (2) which is composed of at least two components (3, 4) that are coaxially displaceable in one another,
 - 10 - a substantially flexible, preferably tubular or sleeve-shaped inner part (7), and
 - a discharge orifice (11) for the material, preferably on the outer part (2).
- 15 2. The application aid as claimed in claim 1, characterized in that gripping means, preferably handgrips (5, 6), are provided on the components (3, 4) of the outer part (2) for displacing them in one another.
- 20 3. The application aid as claimed in claim 1 or claim 2, characterized in that at least one guide means, preferably in the form of at least one guide wire, is provided and extends substantially along the entire length of the application aid, preferably 25 inside the inner part.
4. The application aid as claimed in one of the preceding claims, characterized in that the discharge orifice (11) for the material (12) is provided at an end of the application aid (1), preferably of the outer part (2), designed in the shape of a tip (10).
- 35 5. The application aid as claimed in one of the preceding claims, characterized in that, in the inside of the outer part (2), at least one

preferably membrane-like or film-like element (8) is provided that can be moved at least partially radially outward.

5 6. The application aid as claimed in claim 5, characterized in that the preferably membrane-like or film-like elements (8) are secured on the inner part (7) or at least partially form the inner part.

10 7. The application aid as claimed in claim 5 or claim 6, characterized in that the preferably membrane-like or film-like elements are arranged on the outside surface of a balloon-like element.

15 8. The application aid as claimed in claim 5 or claim 6, characterized in that the preferably membrane-like or film-like elements (8) form the wall of a balloon-like element.

20 9. The application aid as claimed in claim 7 or claim 8, characterized in that the balloon-like element (8) is inflatable, the inner part (7) itself preferably being able to be subjected to pressure and/or a tubular element being guided through the inner part.

25 10. The application aid as claimed in claim 7 or claim 8, characterized in that the balloon-like element is self-expandable, preferably being made of a shape-memory material.

30 35 11. The application aid as claimed in one of claims 6 through 10, characterized in that the preferably membrane-like or film-like elements and/or the balloon-like element are secured releasably.

12. The application aid as claimed in one of claims 5 through 11, characterized in that the preferably membrane-like or film-like elements and/or the balloon-like element are made of a bioabsorbable material, preferably a bioabsorbable plastic.
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13. The application aid as claimed in one of the preceding claims, characterized in that, on the outer part (2) and/or on the inner part, marking means (13, 14) are provided for detecting the relative displacement of the components of the outer part and/or for detecting the discharging of material.
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14. The application aid as claimed in one of the preceding claims, characterized in that the application aid (1) is filled with a material (12) for treatment of bone defects.
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15. The application aid as claimed in claim 14, characterized in that the outer part is filled at least partially, preferably completely, with the material.
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16. The application aid as claimed in claim 15, characterized in that only the volume between the inner part and/or the optional preferably membrane-like or film-like elements and the wall of the outer part is filled with the material.
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17. The application aid as claimed in claim 15, characterized in that it is essentially only the volume to the inside of the optional preferably membrane-like or film-like elements that is filled with the material.
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18. The application aid as claimed in claim 15, characterized in that, when preferably membrane-

like or film-like elements are provided, both the volume between these elements and the wall of the outer part and also the volume within these elements is filled with the material.

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19. A kit for the treatment of bone defects, characterized in that it comprises at least one application aid as claimed in one of the preceding claims.